



**LOIS RACS(C) Core Programme
Sea Vigil SV 28
Cruise Report
11th-15th December 1995**

Personnel:

Duncan Plummer (PML/LOIS Hull)	Senior Scientist
Neil Hudson (PML)	
Peter Shaw (U of Southampton)	
Tim Fileman (PML)	
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Tristan Sjoberg (UEA/PML)	
Roger Ling (PML)	

Monday 11th: The scientific Party traveled to Hull from Plymouth and Southampton. Late afternoon and early evening equipment was loaded and commissioned (1715-2015).

Tuesday 12th: Downstream survey

The party mustered at 0900 and the *Sea Vigil* locked out of Hull Marina at 1045. The downstream survey started at station 17 (1108) and continued seawards to station 28 (1313). The survey then went out of the estuary into the plume region and included stations VP1, VP2, VP3 and VP9. The survey continued to station 30 (1435) and ended at station 17 (1717). The survey measured nutrients (TON, phosphate, silicate, ammonium and urea), conductivity, temperature, turbidity, pH and DO. Discrete samples were collected for gravimetric, C/N, chlorophyll and DOC analysis. In addition samples were collected for phytoplankton enumeration and identification. Large volume samples were collected at stations 24, 28, 30, 34, VP1, VP2, VP3 and VP9 for later incubation experiments. The *Sea Vigil* locked into the marina at 1745 and was along side at 1800. The scientific party disembarked at 1830.

Wednesday 13th: Upstream survey

The party mustered on board at 0530 and *Sea Vigil* departed Hull Marina at 0700. The upstream survey commenced at station 16 (0743) and continued to station 38 (1044) and returned downstream and ended at station 16 (1419). Stations sampled 16-1, 38, 38, 1-16. The nutrient and standard parameter survey was as on Tuesday. Discrete samples were taken at all stations for gravimetric, C/N chlorophyll and DOC. Large volume samples were collected at stations 16, 12, 8, 4 and 1 for later incubation experiments. The *Sea Vigil* tied up along side Admiral Steps at 1437, samples equipment were unloaded. At 1600 the scientific party had left the vessel. In the evening equipment required for the work on Thursday was loaded and commissioned (1900-2100).

Thursday 14th: Organic Micropollutant Survey

The scientific party was on board at 0700 and the *Sea Vigil* departed Hull Marina at 0735. The first station, Swinefleet, was sampled at 0954. A total of 8 stations were sampled in the Ouse, Trent and upper Humber. The vessel passed Hull at 1538 and proceeded downstream to Spurn Head. The organic micropollutants work continued downstream. Further stations in lower Humber completed the survey. The final station at BP was completed at 2105. Samples of water, sediments and suspended particles were collected for later determination of organic micropollutants. Samples were collected for DOC as part of the seasonal survey work. Carbon monoxide concentrations were measured throughout the survey. The surface waters were monitored using the NRAs system to record the standard variables. The *Sea Vigil* locked into the Marina at 2130 and was at the wall at 2200. After unloading the party departed the vessel. The *Sea Vigil* returned to her berth and was fast at 2230.

Friday 15th: Contingency day.

Notes:

This was the twentyfourth LOIS RACS(C) Core Programme survey of the Humber and Ouse. Carbon monoxide concentrations were monitored for the first of a series of two monthly investigations. The sixth of a series of seasonal surveys investigating the distribution of organic micropollutants was carried out. A seventh, and winter, collection of samples for determination of production parameters was completed. All aspects of the study were carried out over the full length of the estuary.

Duncan Plummer

21st December 1995